

REMARKS

Claims 5-19 and 22-28 are pending. Claims 9-11 have been allowed, claims 5, 13-19, and 22-26 have been amended, and new claim 28 has been added to recite additional features of Applicants' invention.

Reconsideration of the application is respectfully requested for the following reasons.

I. Rejection under 35 USC § 101.

In the Office Action, claims 14-19 and 22-26 were rejected under 35 USC § 101 for failing to recite patentable subject matter. To overcome this rejection, claims 14-19 and 22-26 were amended to recite a method of forming a data structure, which clearly falls within one of the statutory classes of subject matter set forth in § 101 and, further, which complies with the guidelines set forth in MPEP § 2106. Withdrawal of the § 101 rejection is respectfully requested in view of these amendments.

II. Double-Patenting Rejection.

The Examiner issued an obviousness-type double-patenting rejection of claims 14-19 and 22-26 based on claim 1 of U.S. Patent No. 6,721,447. While Applicants submit that claims 14-19 and 22-26 are non-obvious variants of the invention defined in claim 1 of this patent, a Terminal Disclaimer has nevertheless been submitted with this paper to overcome the rejection. With the filing of this Terminal Disclaimer, it is respectfully submitted that claims 14-19 and 22-26 are in condition for allowance.

III. Rejection under 35 USC § 102.

The Examiner rejected claims 5, 7, 8, 12, and 27 under 35 USC § 102(b) for being anticipated by the Vellaikal article. Applicants traverse this rejection for the following reasons.

In maintaining the § 102(b) rejection, the Examiner stated in the previous Office Action that "Vellkaikal does not match only one region instead Vellakikal is matching different regions, therefore Vellaikal shows cross-matching [similarity between two images] different grid levels [regions r1, r2, . . . rn] of the reference and target image." The Examiner appears to be saying that in performing its cross matching functions, grid level r1 in the target image is compared to grid level r1 in the reference image, that grid level r2 in the target image is compared to grid level r2 in the reference image, and so on.

However, claim 5 has been amended to recite cross-matching grid levels of the reference and target images "such that a grid on one level of the reference image is matched to a grid of a different level in the target image." The Vellaikal article does not disclose these features. Rather, Vellakail only discloses matching r1 grid levels in reference and target images, matching r2 grid levels in these images, and so on. Vellaikal does not disclose, for example, matching a grid on level r1 in the reference image to a grid on level r2 in the target image as would be covered by the claimed invention. These differences are explained in greater detail in the Remarks section of the Amendment filed on October 30, 2003.

Because the Vellaikal article does not disclose all the features recited in claim 5, it is respectfully submitted that claim 5 cannot be anticipated by this reference. Applicants further submit that these differences are sufficient to render claim 5 and its dependent claims non-obvious and thus patentable over Vellaikal.

IV. Rejections under 35 USC § 103(a).

The Examiner rejected claims 6, 14-19, and 22-26 under 35 USC § 103(a) for being obvious over a combination of Vellaikal and Chua. Applicants traverse this rejection for the following reasons.

Claim 14 recites that each of the cells in the first grid is assigned a first value and a second value for representing the spatial color feature of said image, and that "the first value is a regional representative color and the second value is a reliability score indicative of an accuracy of the regional representative color." In rejecting claim 14, the Examiner relied on the Vellaikal article to supply the first value (regional representative color) and the Chua article to supply the second value (reliability score). Applicants respectfully submit that no teaching or suggestion exists to support combining Vellaikal and Chua in this manner.

More specifically, the Vellaikal article discloses generating DCT coefficients which provide a measure of average color for various portions of its grid. The Examiner drew a correspondence between the "first value" of claim 14 and these DCT coefficients.

The Chua article discloses comparing the color of a total number of pixels in a cell to a threshold value, and then setting a bit or not setting a bit based on whether that total number exceeds the threshold. The Examiner indicated that the setting of this bit provides an indication of reliability as to whether that cell has that average color.

In spite of these disclosures, no teaching or suggestion exists that supports assigning the DCT coefficients of Vellaikal and the bit value of Chua to each cell in a grid. This is because no relationship exists between this bit value of Chua and the DCT coefficients of Vellaikal. More specifically, claim 14 requires that the second value bear relationship to the first value, by providing an indication of reliability of the first value in terms of its ability to represent the color of the cell. The bit value of Chua provides an indication of reliability of color in a cell, by comparing pixels colors in each cell to a threshold to compute an average. The bit value of Chua, however, does not provide any indication of how reliable DCT coefficients such as the type computed by Vellaikal may be in representing a cell color value.

Put differently, the bit value of Chua is computed independently from the DCT coefficients of Vellaikal, and therefore the bit value of Chua can provide no indication of how reliable the DCT coefficients of Vellaikal are in representing cell color. Consequently, Chua does not teach or suggest: "second value is a reliability score indicative of an accuracy of the regional representative color." (Highlight added to emphasize that the second value must provide an indication of reliability of the first value and not just the color of a cell in general).

Applicants respectfully submit that claim 14 and its dependent claims are allowable over a Vellaikal-Chua combination for at least the foregoing differences. Applicants further submit that claim 6 is allowable at least by virtue of its dependency from claim 5.

New claim 28 recites the additional step of "setting the reliability score of each cell based on a value which is determined in accordance with mixed rate information and color similarity information." See, for example, column 3, lines 8-60 of parent U.S. Patent No. 6,721,447 for support. The Vellaikal and Chua articles do not teach or suggest these features, and therefore it is submitted that claim 28 is also allowable.

The Examiner rejected claim 13 for being obvious over a combination of the Vellaikal and Ardizzone articles. Applicants traverse this rejection for the following reasons.

Claim 13 recites that the determining step including cross-matching grid levels of the reference image with grid levels of the target image, such that a grid on one level of the reference image is matched to a grid of a different level in the target image. The Vellaikal article does not teach or suggest these underlined features and neither does the Ardizzone article, i.e., Ardizzone was cited for its disclosure of performing a best match operation and does not disclose matching a grid on one level of a reference image to a grid on a different level of a target image.

Based on these differences, it is respectfully submitted that claim 13 is allowable over a Vellaikal-Ardizzone combination.

Reconsideration and withdrawal of all the rejections and objections made by the Examiner is hereby respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of the application is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR § 1.136. Please charge any shortage in fees due in connection with this application, including extension of time fees, to Deposit Account No. 16-0607 (Attorney Docket No. P-082) and credit any excess fees to the same Deposit Account.

Respectfully submitted,



Carl R. Wesolowski
Registration No. 40,372

Samuel W. Ntiros
Registration No. 39,318

FLESHNER & KIM, LLP
P.O. Box 221200
Chantilly, Virginia 20153-1200
Telephone No: (703) 502-9440
Facsimile No: (703) 502-9596